

# HS2, GIS, BIM and Historic Environment Works – an overview

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# Overview

- How we use GIS at HS2
- BIM; what is it, where does GIS fit in and how does it benefit Historic Environment Works?
- What are the next steps?

# How we use GIS at HS2 and where



# Where we use GIS at HS2 within Environment



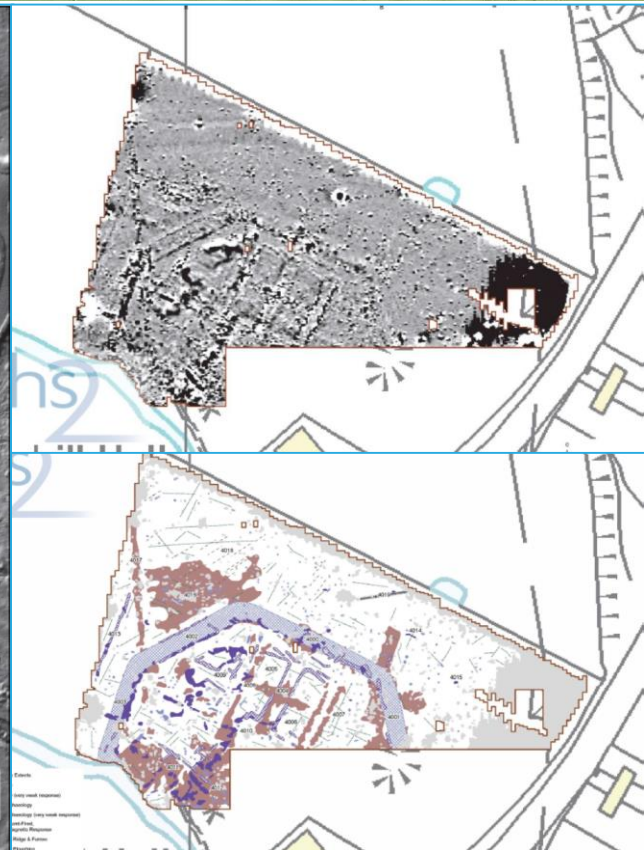
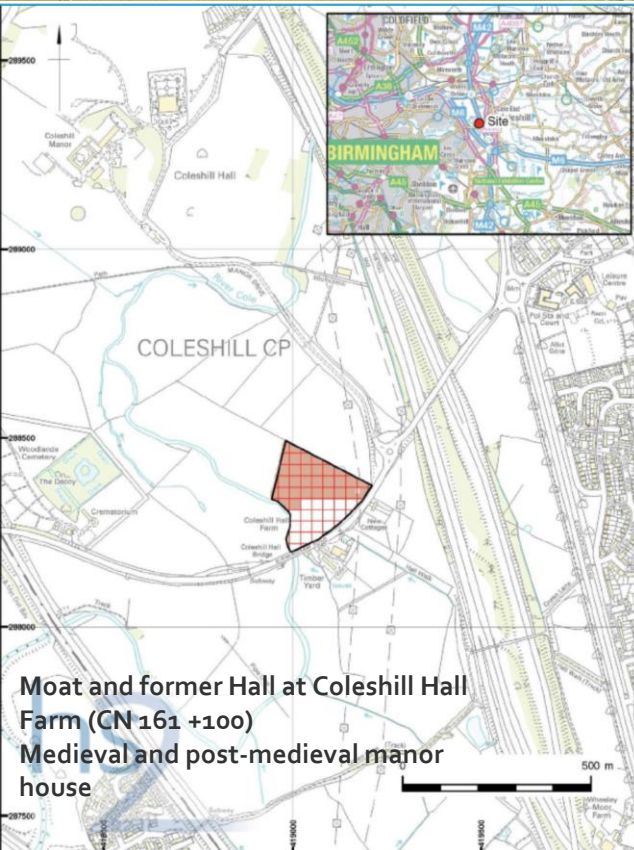
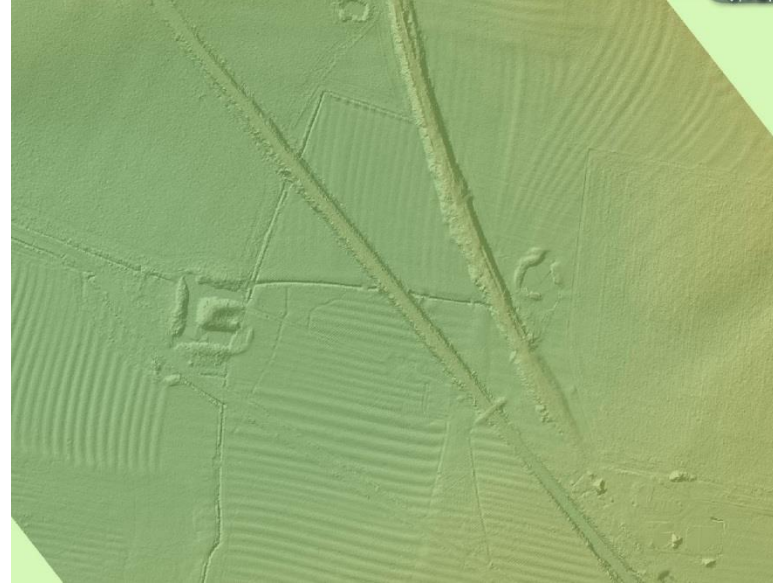
# How we use GIS at HS2 within Environment

- Environmental Appraisals such as the Phase One EIA, Phase Two AoS and forthcoming Phase Two EIA
- PQ's, ad-hoc queries, bespoke projects

## Phase One EIA

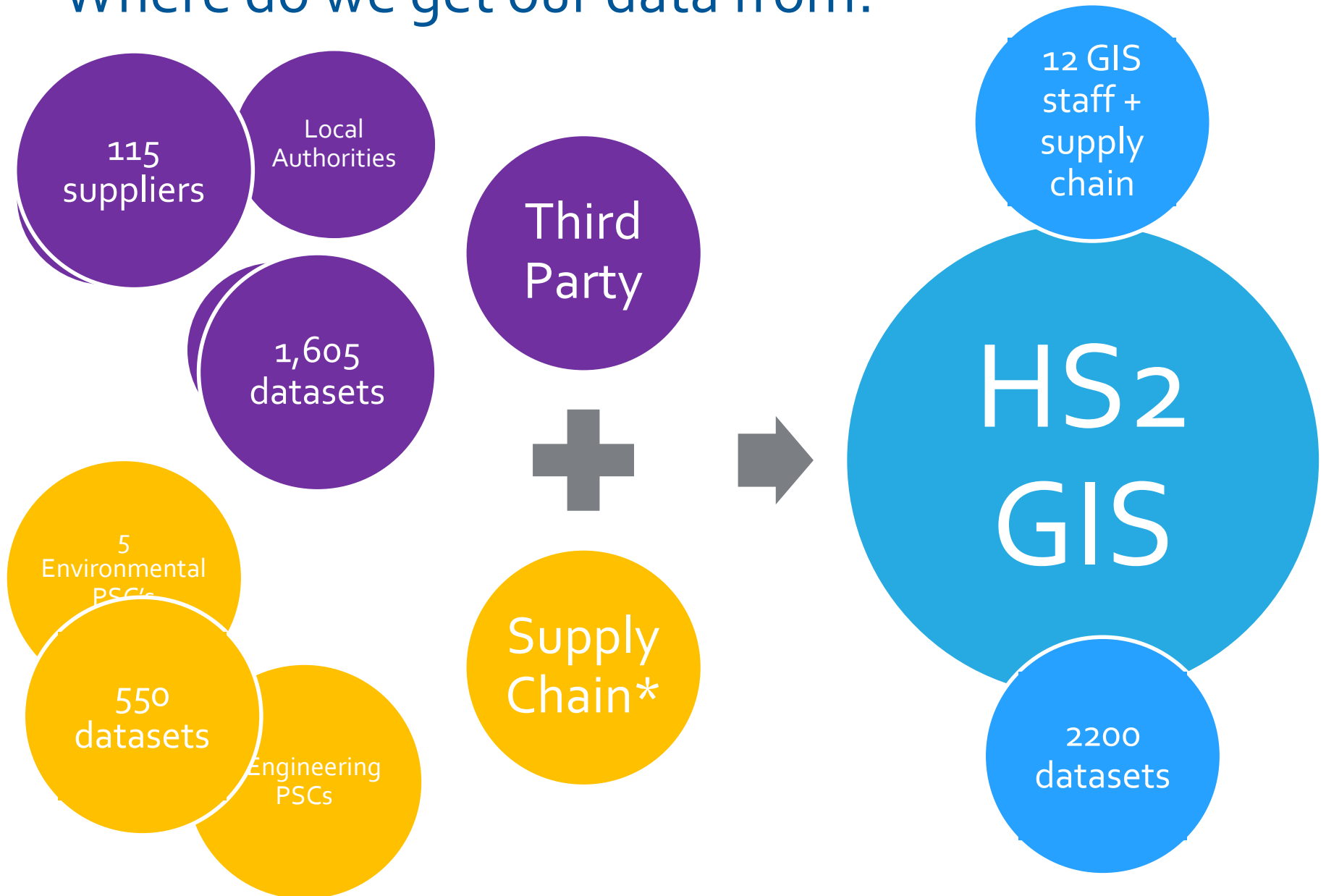
- 55,000 pages
- 10,000+ maps
- 50 environmental datasets, 300 engineering
- GIS provides the foundation

# Some examples of GIS analysis



Moat and former Hall at Coleshill Hall Farm (CN 161 +100)  
Medieval and post-medieval manor house

# Where do we get our data from?



# What do we do with that data?

- Data Management activities such as procurement, licencing, assurance, specification
- gViewer
- Provide data to the Supply Chain and updates
- Open Data provision
- Onward use within projects to 'mature' our understanding of HS2 project



# Challenges

- Managing volume of data
- Specifying, assuring and integrating Programme
- Meeting stakeholder expectations

# What is BIM?

- Building Information Modelling
- **Better Information Management**
- BIM is comprised of two key components:

**Data Management** - a set of standards, methods and procedures that provide a consistent approach to the production, management and delivery of asset information; and

**Data Modelling** - often referred to as Digital Engineering, this is the use of data to support decision making. Examples of Data Modelling may include the application of Digital Design (3D) to enhance Health and Safety and Carbon Management; Construction Sequencing (4D); Cost Estimating (5D); and Digital Fabrication.”



# Where does GIS fit into BIM and for Historic Environment Works?

- User friendly way of accessing information about assets
- All information has a relationship with Geography
- Historic Environment Works will be assets
- Generate vast quantity of digital information and physical finds

# Where does GIS fit into BIM and for Historic Environment Works?

- GIS will be the spatial representation of all Historic Environment Works
- Can link together many different information sets
- Allows us to understand relationship to the design and our other assets

# What are the next steps?

- Specifying what we want for Construction phase
  - Technical Standards including information
- GWSI:HERDS – setting out a vision, research objectives and encouraging our supply chain to be innovative where information is concerned
- Vision for a collaborative digital space between HS2 and Supply Chain to facilitate information sharing for HERDS

Questions?

Thank you